CLAIMS

What is claimed is:

1. A method of calculating Thevenin parameters
5 comprising the steps of:
(a) initializing estimates of effective capacitances
Ceff1 and *Ceff2*, of a switching threshold delay *t0*, and of
a slope delay *deltat*; and
(b) solving ramp response equations for *t0* and *deltat*
10 as a function of *Ceff1* and *Ceff2*.

2. The method of Claim 1 further comprising the
step of (c) comparing the estimates of *t0* and *deltat* with
solutions for *t0* and *deltat* found in step (b).
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3. The method of Claim 2 further comprising the
step of (d) replacing the estimates of *t0* and *deltat* with
the solutions for *t0* and *deltat* if the solutions for *t0*
and *deltat* have not converged to the estimates of *t0* and
20 *deltat*.

4. The method of Claim 3 further comprising the
step of (e) repeating steps (b), (c), and (d) until the
solutions for *t0* and *deltat* converge to the estimates of
25 *t0* and *deltat*.

5. The method of Claim 3 further comprising the
step of (f) calculating a *delay1* as a function of
t30(Ceff1) or *t70(Ceff1)* and a *delay2* as a function of
30 *t50(Ceff2)* from a Foster or a pi model.

6.   The method of Claim 5 further comprising the step of (g) comparing *delay1* and *delay2* to delays *delay1'* and *delay2'* corresponding to *Ceff1* and *Ceff2* in a delay lookup table.

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7.   The method of Claim 6 further comprising the step of (h) finding new values for *Ceff1* and *Ceff2* from a reverse lookup of *delay1* and *delay2* in the delay lookup table if *delay1* and *delay2* have not converged to *delay1'*

10 and *delay2'*.

8.   The method of Claim 7 further comprising the step of (i) replacing the estimates of *Ceff1* and *Ceff2* in step (b) with the new values for *Ceff1* and *Ceff2*.

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9.   The method of Claim 8 further comprising the step of (j) repeating steps (b) through (i) until *delay1* and *delay2* converge to *delay1'* and *delay2'*.

20   10.   A computer program product comprising:
a medium for embodying a computer program for input to a computer; and
a computer program embodied in the medium for causing the computer to perform at least one of the following

25 functions:
(a) initializing estimates of effective capacitances *Ceff1* and *Ceff2*, of a switching threshold delay *t0,* and of a slope delay *deltat;*
(b) solving ramp response equations for *t0* and

30 *deltat* as a function of *Ceff1* and *Ceff2;*

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(c) comparing the estimates of $t0$ and $deltat$ with solutions for $t0$ and $deltat$ found in step (b);

(d) replacing the estimates of $t0$ and $deltat$ with the solutions for $t0$ and $deltat$ if the solutions for

5 $t0$ and $deltat$ have not converged to the estimates of $t0$ and $deltat$;

(e) repeating steps (b), (c), and (d) until the solutions for $t0$ and $deltat$ converge to the estimates of $t0$ and $deltat$;

10 (f) calculating a $delay1$ as a function of $t30(Ceff1)$ or $t70(Ceff1)$ and a $delay2$ as a function of $t50(Ceff2)$ from a Foster or a pi model;

(g) comparing $delay1$ and $delay2$ to delays $delay1'$ and $delay2'$ corresponding to $Ceff1$ and $Ceff2$ in a

15 delay lookup table;

(h) finding new values for $Ceff1$ and $Ceff2$ from a reverse lookup of $delay1$ and $delay2$ in the delay lookup table if $delay1$ and $delay2$ have not converged to $delay1'$ and $delay2'$;

20 (i) replacing the estimates of $Ceff1$ and $Ceff2$ in step (b) with the new values for $Ceff1$ and $Ceff2$; and

(j) repeating steps (b) through (i) until $delay1$ and $delay2$ converge to $delay1'$ and $delay2'$.